Joe

Environmental Engineering and Waste Management

RIEDEL INDUSTRIAL WASTE MANAGEMENT, INC.

A Subsidiary of Riedel Environmental Technologies, Inc.

"Imagineering A Cleaner World"

August 30, 1991

Mr. Joe Galbraith
U.S. Environmental Protection Agency
Region VII
726 Minnesota Avenue
Kansas City, KS 66101

Dear Joe:

Following is a summary of the issues covered on the meeting in Kansas City for Region VII cement kilns and associated waste management operators for your review. It has not been distributed.

Please contact Bob Schreiber for any questions, comments or changes, as I will be on vacation until September 16.

Sincerely,

Carrie Yonley, P.E.
Engineering Manager
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DRAFT

SUMMARY OF KANSAS CITY REGION VII MEETING
JULY 24, 1991

A meeting was held on July 24, 1991 in Kansas City, Missouri to discuss the intricacies of interim status under BIF in relation to burning waste in cement kilns. Those attending were:

Carrie Yonley - RIWM
Bob Schreiber - RIWM
Dick Altheide - Continental Cement
Tim Semones - Safety-Kleen
Stan Ehinger - Holnam
David Gossman - GCI/Safety-Kleen
Dick Lavoie - Safety-Kleen
Greg Miller - Holnam
Brian Dawson - Cemtech
Kevin Igli - Chemical Waste Mgmt.
Michael Abbruzzese - Ash Grove Cement
John Chadbourne - Systech
Pat Jarrett - CP Recycling
Paul Knowlson - CP Recycling
John Powell - APCC Ltd.
Dennis Dobson - Lone Star Inds.
Jan Skouby - MDNR
Joe Galbraith - EPA Region VII
John Ramsey - KDHE

The following items were discussed during the course of the meeting:

- ISSUES RELATED TO GAINING INTERIM STATUS
- LIMITS ON OPERATING TEMPERATURES
- VERIFICATION OF AN AIR POLLUTION CONTROL DEVICE OPERATION
- LIMITS ON MAXIMUM PRODUCTION RATES
- METALS ISSUES

  NEED FOR MONITORING OF VERY LOW LEVELS OF CERTAIN METALS

  METALS SPIKING DURING COMPLIANCE TEST

  INSTANTANEOUS MEASUREMENT OF QUANTITIES DURING OPERATIONS

- USE OF SF_6 AS A SURROGATE DURING DRE DEMONSTRATION
- ALTERNATE LIMITS FOR HYDROCARBONS
- RCRA CLOSURE OF A CEMENT KILN

A summary of the discussion on each of the issues follows:

1. General Comments

EPA estimates that 3-5 man years of work will be required by Region VII to implement the BIF regulations. Region VII therefore requested help from the regulated community. For example,

submissions should be very concise and complete, with unnecessary bulk held to a minimum. Due to the lack of manpower, Region VII will probably not be able to review all compliance test plans or attend the compliance tests. This could affect a facility's ability to use compliance test results for their final test burn for finalizing a Part B.

Two new EPA proposed regulations were mentioned. One is the Subpart CC, which addresses fugitive emissions from tanks. The other is the anticipated waste-derived product rule. In the State of Kansas, there are new fee structures being adopted for permit review and for waste treatment, but the final regulations have not been published yet. Missouri is looking at adopting a system to allow fees for a Part B review. In addition, Missouri is proposing regulations to increase the frequency of facility inspections from annually to several times throughout the year (possibly once every two weeks to once a month). It is anticipated that the cost for these inspections would be billed to the facility.

2. Issues Related to Gaining Interim Status

Apparently there is quite a bit of controversy between EPA headquarters and the Region on the "in existence" criteria, such as issues relating to applicable permits, the substantial penalty clause and to the states which presently have a moratorium against permitting new facilities. Although no generic answer exists, each region will be addressing granting of interim status based on specific criteria and conditions. (Note: Since the meeting, EPA has clarified this issue in an August 19, 1991 letter to James J. Scherer, Regional Administrator.)

3. Limits on Operating Temperatures

The industry has some difficulties with measuring temperatures for the operating limits in the February 21, 1991 regulations. It was thought that technical corrections to be published by EPA should address these difficulties. Apparently, EPA is leaning toward substituting the temperature requirements by verification of product quality, but has not decided what test would be used to measure product quality. This is one of the issues that would probably have to be worked out through the final permitting scenario.

At the time of this summary, EPA has not yet addressed the change. The issue of measuring dioxins/furans if the air pollution control device is operating in the 450°-750°F range was also addressed. The agency's concern is that dioxin emissions are demonstrated at the optimum temperature for dioxin formation during the Compliance Testing.

4. Verification of an Air Pollution Control Device Operation

The importance of this operating parameter is to demonstrate that the air pollution control device is operating as required. The methods outlined in the regulation for compliance are not necessarily indicative in all cases of the APCD level of operation. Region VII stated that this is another issue that could most likely be specifically addressed at the time of permitting. It was suggested that EPA be given an acceptable alternative that would focus on actual emissions as opposed to operating parameters for the equipment in the regulations. The problem, as always, is how to control this during interim status before a final permit is issued. A facility could determine an acceptable monitoring indicator and supplement with an opacity reading. The ultimate concern is, of course, that a plant meet the 0.08 gr/dscf requirement. In suggesting this alternative, a correlation should be shown between opacity and particulate emissions for Region VII approval.

5. Limits on Maximum Production Rates

There was a lengthy discussion on the requirement for maximizing clinker production rates during the compliance test. The facilities are concerned that it may be difficult to achieve maximum production while also maximizing all other parameters required during the Compliance Test. Region VII stated that the maximum production rate could be expressed as an operating range, therefore allowing the rate to fluctuate during the Compliance Test. They still feel that it is necessary to demonstrate emissions during maximum production due to public concerns that the emissions at the maximum rate may not have been demonstrated. It would be difficult for the agency to prove to the public what the emissions are if they have not tested at that rate. The facility explained how this maximum production range varies and it is very difficult to hold stable. Region VII recommended putting in a justification for the variation in the test protocol. Their main concern is to keep a facility from testing at a very low production rate and then running at a much higher rate. They will consider what options they may have for flexibility when considering maximum production rates. Region VII indicated that a detailed statement of the problem, including data to verify the needed flexibilities, would be beneficial.

6. Metals Issues

A discussion was held about the availability, or lack thereof, of several of the metals that would require spiking during the Compliance Test. The amount of several of the metals in the raw materials well overshadows the amount that would be in any fuels; therefore, heavy spiking would be necessary in order to reflect higher concentrations in the fuel. In the discussion,

it came up that if it could be shown that if all the metal goes out the stack as dust and the maximum still could not be triggered, then it would not be necessary to measure that metal in the hazardous waste feed streams.

The continuous monitoring of metals required in the BIF regulations should be sufficient to know at all times what is in the waste feed to the kiln. Knowing this value and the feed rates, one can calculate the continuous feed rate of each metal. The guidance manual allows for a 10 ton multiplier for an instantaneous limit from an average. However, this appears only for carcinogenic metals. One can sample a burn tank to know the concentration of a particular metal in the hazardous waste feed. It will be necessary, however, to document that a homogenous mixture exists. If any material is added, the tank will have to be retested.

The enrichment factor approach to metals emissions determination was discussed. Region VII does not believe that it is the best method to use. They would recommend a conservative approach to the application of that method.

7. Use of SF_6 as a Surrogate During DRE Demonstration

Region VII is not ruling out the use of SF_6 as a surrogate for DRE. However, since it is not oxygen-sensitive and is only available in a gas,m they are not convinced that this is a viable method.

8. Alternate Limits for Hydrocarbons

Region VII is still opposed to a kiln which demonstrates >20 ppm hydrocarbons while burning hazardous waste, but has conceded that they can be convinced otherwise if the kiln can demonstrate that the hydrocarbons are not produced from combustion. The HC baseline that a facility establishes will have to be redemonstrated every time raw materials are changed. The problem of the variation in hydrocarbons will have to be resolved through testing and through negotiating effective methodology to analyze the variations. It was indicated that in doing a risk assessment for the alternate hydrocarbon approach, one will have to do a lot of work on speciation of the hydrocarbons.

9. RCRA Closure of a Cement Kiln

Region VII's approach to closure is a two-phased approach. The first phase includes shutting down the hazardous waste operations. This includes flushing the feed systems and burning out the kiln using normal fuels. EPA may come up with standard procedures for the length of time and the method to use. The second phase includes shutting down the entire cement kiln operation at final closure of the facility, which will include a

very extensive closure plan. The whole refractory and shell would have to be decontaminated, along with all feed mechanisms, air pollution control devices and other equipment.

Upon Phase I closure, EPA may want a long term agreement that when the kiln is finally closed, they will perform the second phase procedures. EPA does have the authority to require the second phase of closure at the time of Phase I RCRA closure. It was also indicated that one would have to include financial assurance for both types of closure, Phases I and II.

The described scenario goes one step further. When any equipment is changed during RCRA operations, the equipment will have to be tested to see if it has been properly decontaminated.